NASA Weekly Update

Week of June 26 – July 2, 2006

7-2: NASA Aims For Independence Day Space Shuttle Launch: The next launch attempt for Discovery's STS-121 mission to the International Space Station is scheduled for Tuesday at 2:38 p.m. EDT. Commentary on NASA Television will begin with fueling of the shuttle's external tank at 4 a.m. followed

Discovery poised for launch

by full coverage at 8:30 a.m. The forecast for Tuesday shows a 60 percent probability of weather permitting launch. For NASA TV downlink and scheduling information, visit: http://www.nasa.gov/ntv. For the latest information on the STS-121 mission, visit: http://www.nasa.gov/shuttle.

6-30: NASA Names New Rockets, Saluting The Future, Honoring The Past: NASA announced on Friday the names of the next generation of launch vehicles that will return humans to the moon and later take them to Mars and other destinations. The crew launch vehicle will be called Ares I, and the cargo launch vehicle will be known as Ares V. For information about NASA's exploration efforts, visit: http://www.nasa.gov/exploration.

6-30: NASA Awards Engineering and Scientific Services Contract: NASA's Glenn Research Center in Cleveland, OH, has selected ASRC Aerospace, Inc., of Greenbelt, MD, to provide engineering and scientific services. ASRC will provide on-site support services for technical, engineering and scientific tasks in the areas of aeronautics, microgravity science, space exploration, space power and propulsion, related science and technology activities.

6-30: NASA Selects Consortium For Education Cooperative Agreement: NASA's Office of Education Minority University Research and Education Program selected a consortium of three organizations to administer its Motivating Undergraduates in Science and Technology Project: the Hispanic College Fund, the United Negro College Fund Special Programs Corporation, and the Society of Hispanic Professional Engineers. Through this and NASA's other college and university programs, the agency will identify and develop the critical skills and capabilities needed to achieve future missions.

6-30: NASA Issues Hubble Space Telescope Status Report: NASA engineers successfully activated the Advanced Camera for Surveys at 9:12 a.m. EDT Friday, June 30, 2006, aboard the agency's Hubble Space Telescope. Checkout was completed at 10:20 a.m. EDT with science observations scheduled to resume Sunday, July 2. For information about the Hubble Space Telescope, visit: http://www.nasa.gov/hubble.

6-29: NASA's Micro-Satellites Complete Technology Validation Mission: NASA's three orbiting micro-satellites known as Space Technology 5 have completed their planned 90-day mission. The mission team is shutting down the spacecraft to conclude operations on Friday, June 30. The mission primarily focused on flight testing miniaturized satellites in the harsh environment of space and evaluating their ability to make research-quality scientific measurements. For information about the Space

Technology 5 mission's technology and detailed results, visit http://www.nasa.gov/st5.

6-28: NASA Satellite Positioning Software May Aid In Tsunami Warnings: University scientists using Global Positioning System (GPS) software, developed by NASA, have shown GPS can determine, within minutes, whether an earthquake is big enough to generate an ocean-wide tsunami. This NASA-funded technology can be used to provide faster tsunami warnings. The new method, called GPS displacement, works by measuring the time radio signals from GPS satellites arrive at ground stations located within a few thousand kilometers of a quake. Results of the study are published in Geophysical Research Letters.

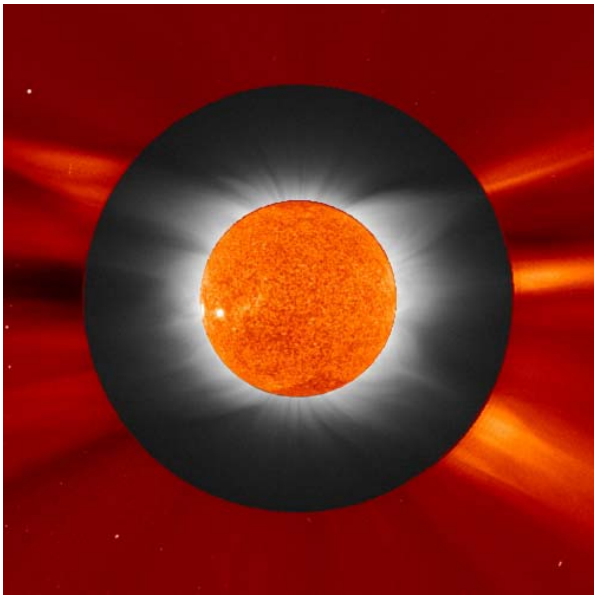
6-28: NASA Launches New Education Initiative For Minority Institutions: NASA kicked off a new initiative with the United Negro College Fund Special Programs Corporation on Wednesday. The initiative will give researchers and students from minority institutions direct access to NASA facilities, scientists and capabilities. Funded by a $3.5 million grant from NASA, the corporation will establish the NASA Science and Technology Institute for Minority Institutions. The institute will be in the NASA Research Park at the agency's Ames Research Center, Moffett Field, Calif. For information about NASA education programs, visit: http://www.nasa.gov/education.

6-27: NASA's Hubble Reveals Two Dust Disks Around Nearby Star: NASA's Hubble Space Telescope has revealed two dust disks circling the nearby star Beta Pictoris. The images confirm a decade of scientific speculation that a warp in the young star's dust disk may actually be a second inclined disk, which is evidence for the possibility of at least one Jupiter-size planet orbiting the star. The finding appears in the June 2006 issue of the Astronomical Journal. Images and more information about Beta Pictoris are available at: http://hubblesite.org/news/2006/25.

6-26: Exploration Systems Progress Report: NASA engineers are in the midst of a new series of tests that will aid development of the agency's future space transportation systems. The tests support development and integration of the Crew Launch Vehicle, Crew Exploration Vehicle and Cargo Launch Vehicle under the Constellation Program. The program is developing both crew and launch vehicles for NASA's plan to return humans to the moon, Mars and destinations beyond. For information about NASA's exploration efforts on the Web, visit: http://www.nasa.gov/exploration.

6-26: NASA's "Weightless Wonder" Host Experiments: NASA has selected six proposals from museums and science centers to fly their experiments aboard NASA's "Weightless Wonder," a C-9 aircraft that flies a series of rollercoaster-like dips and climbs to produce periods of weightlessness. The selected institutions have partnered with their local communities to propose and design experiments for NASA's new Reduced Gravity Museum and Science Center Flight Opportunities Program. For information about the Reduced Gravity Museum Flight Opportunities Program, visit: http://microgravityuniversity.jsc.nasa.gov/museum.

6- 26: NASA and NSF Computers Simulate Sun's Corona: For the first time, researchers have developed a computer simulation that can accurately create a model of the sun's outer atmosphere, or corona. Funded by NASA and the National Science



Researchers set out to predict the view of the solar atmosphere, or corona, which is most easily observed during an eclipse.

Foundation, the computer model marks the beginning of a new era in space weather prediction. For additional information and graphics, visit: http://www.nasa.gov/vision/universe/solarsystem/corona_telecon.html.

Weekly Status Reports

The Expedition 13 crew welcomed a Russian resupply ship this week and prepared for the arrival of Space Shuttle Discovery. Discovery's launch is scheduled for 2:38 p.m. EDT Tuesday. Discovery's STS-121 mission will return the station to three crew members for the first time since 2003, when European

Space Agency astronaut Thomas Reiter joins crew members Jeff Williams, flight engineer and Pavel Vinogradov, commander.

To get ready for STS-121 spacewalks, the crew flushed cooling loops in the Quest airlock and U.S. spacesuits, configured airlock systems and tools and reviewed robotic arm procedures. They checked out a ship-to-ship communications system that will be used for conversations with Discovery's crew during rendezvous and disconnected the station's Common Cabin Air Assembly heat exchanger.

That device will be returned to Earth aboard Discovery along with other equipment in the Italian-built Leonardo Multipurpose Logistics Module. Discovery will use Leonardo to bring about 5,000 pounds of supplies to the station.

The crew also completed a mid-mission session of the renal stone experiment by collecting urine samples and logging all of the food and drinks consumed over a three-day period. Each crewmember is taking either potassium citrate, a drug found to be useful in preventing kidney stone formation on Earth, or a placebo. Crews in space are at risk for kidney stones because of their loss of bone density.

ISS Progress 22, the unpiloted Russian cargo spacecraft, brought 2.5 tons of fresh produce, other foodstuffs, food, fuel and supplies to the station on June 26. After the cargo ship was fully connected with station systems, flight controllers in Moscow completed a routine thruster test, and Vinogradov removed its Kurs automated rendezvous hardware.

The next station status report will be issued on Friday, July 7, or after the STS-121 mission.

For more about the crew's activities and station sighting opportunities, visit: http://www.nasa.gov/station.

Upcoming Events

--July 4: Launch of Space Shuttle Discovery, STS-121
--July 6-7: Meeting of the NASA Advisory Council Science Subcommittees, Loew's L'Enfant Plaza Hotel, Washington, DC
--July 20: Meeting of the NASA Advisory Council, Hilton Houston NASA Clear Lake, Houston, TX
--July 20: Mars Viking Anniversary Event in the Rayburn Foyer.

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